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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/864,389	05/25/2001	Jacob Richter	2390/49704	1194
27123	7590	08/10/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			BUI, VY Q	
			ART UNIT	PAPER NUMBER
			3731	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/864,389

Applicant(s)

RICHTER ET AL.

Examiner

Vy Q. Bui

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Supplemental Amendment 8/3/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,6,8,11,26,28,31-47 and 49 is/are pending in the application.
- 4a) Of the above claim(s) 31-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,6,8,11,26,28,42-47 and 49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

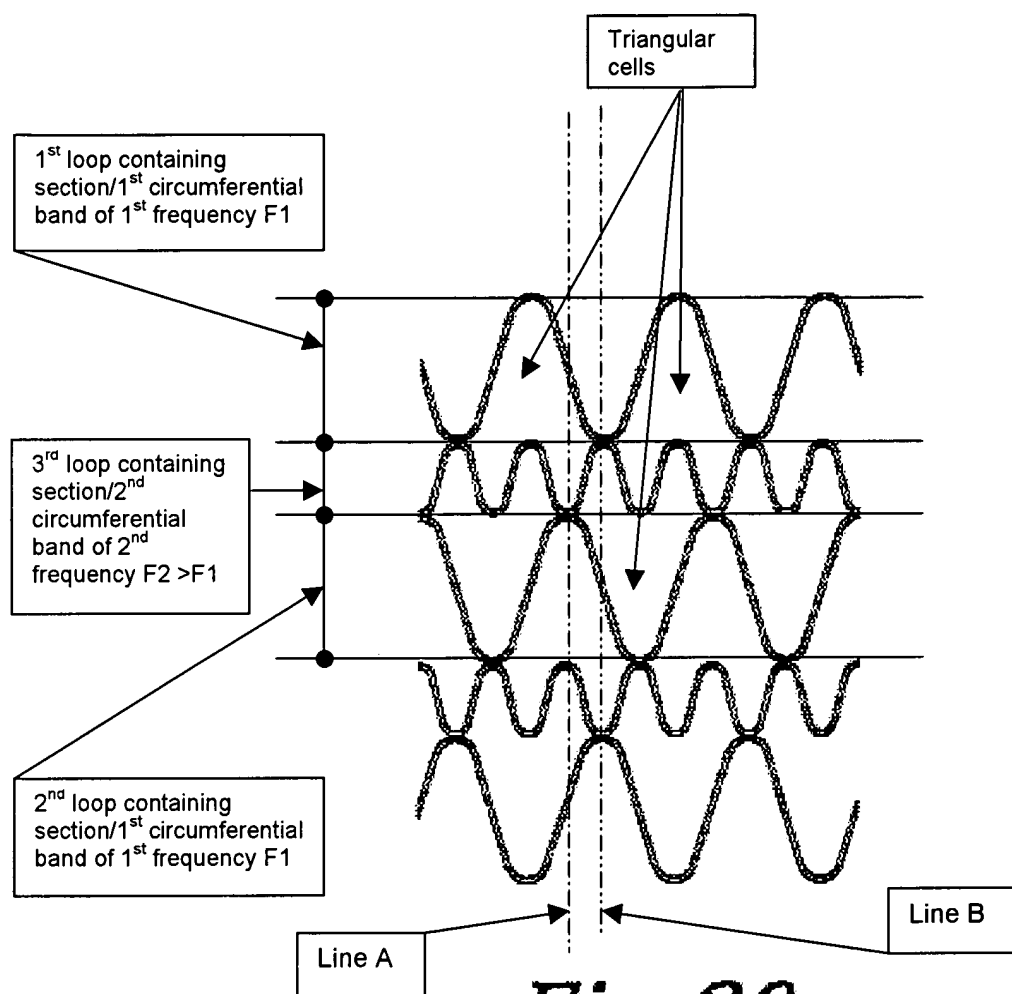
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. <u>20050806</u> .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/4/05</u> .  | 6) <input type="checkbox"/> Other: _____.                                   |

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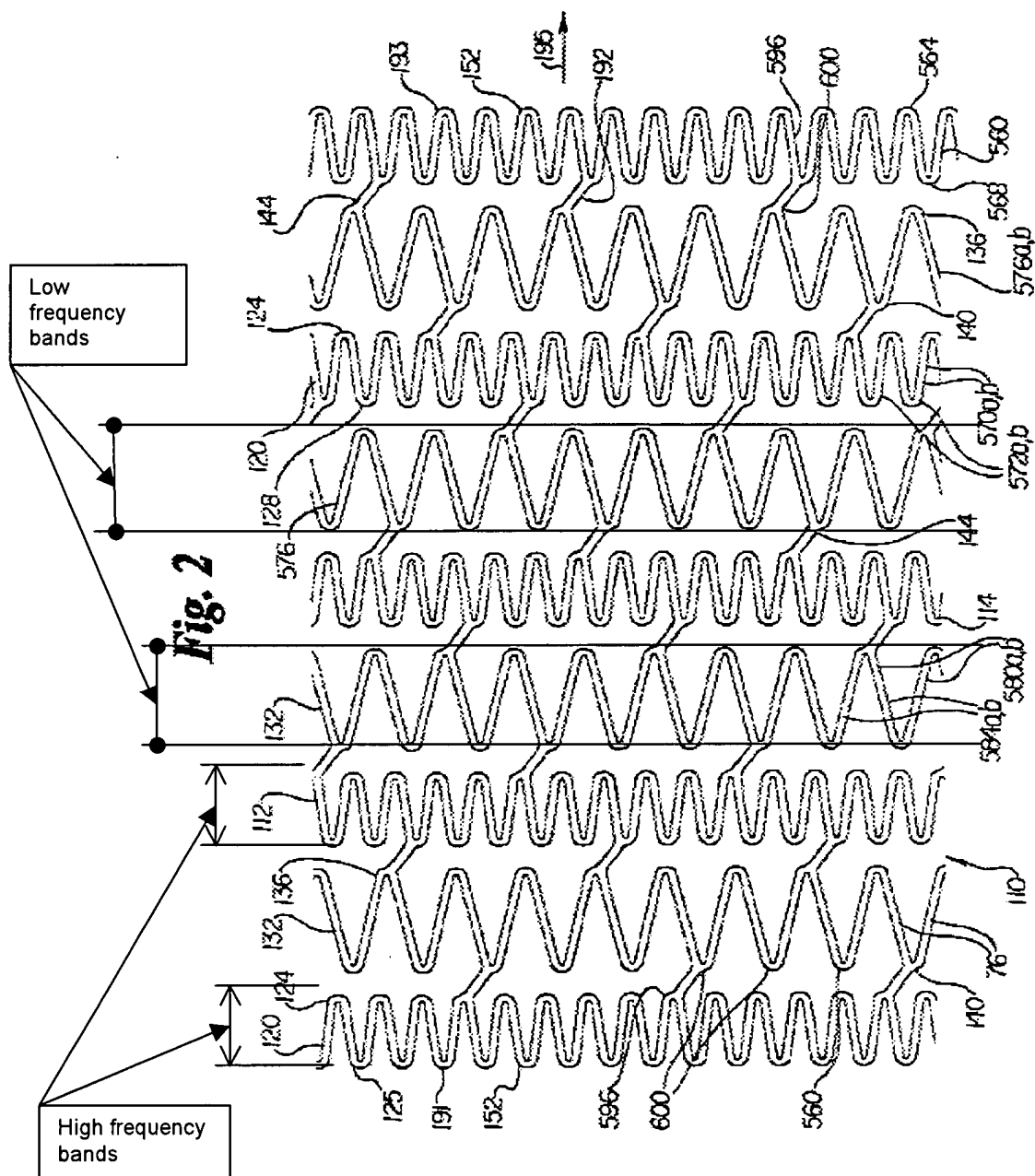
DETAILED ACTION



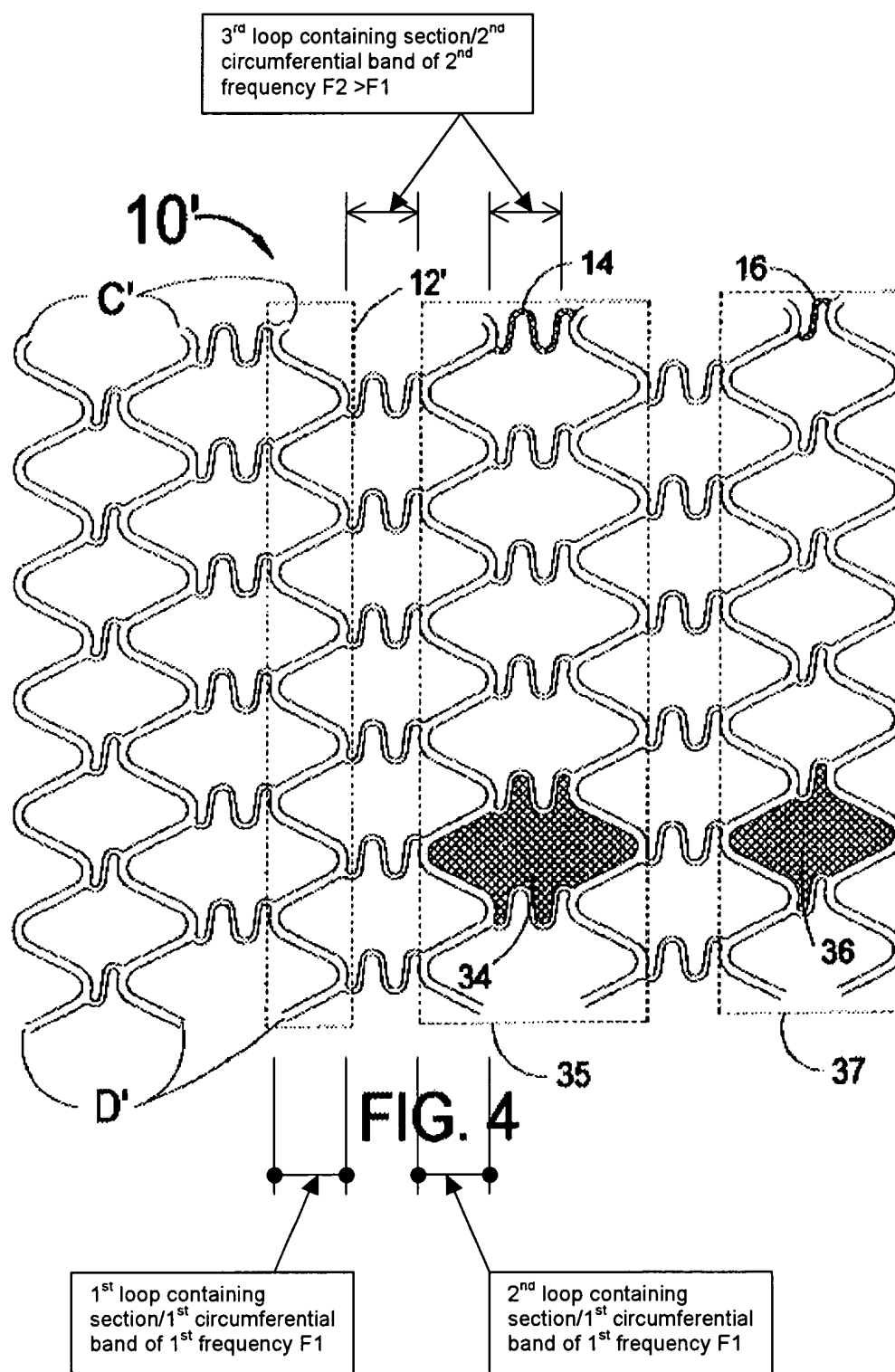
*Fig. 30*

(JAYARAMAN)

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***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1, 6, 42-47 and 49 are rejected under 35 U.S.C. 102(e) as being anticipated by Fischell-6,190,403.

Please refer to Fischell's Fig. 4 reproduced and shown in page 4 of this "Office Action". Fischell-'403 (Fig. 4) disclose substantially all structural limitations of the claimed invention. Notice that there is no limitation in the claims to specify what is the scope of the claims by the term "oriented". Because 1<sup>st</sup> loop containing sections/1<sup>st</sup> circumferential bands of frequency F1, 2<sup>nd</sup> loop containing sections/1<sup>st</sup> circumferential bands of frequency F1, and 3<sup>rd</sup> loop containing sections/2<sup>nd</sup> circumferential bands of frequency F2>F1 extend in circumferential direction of the stent 10' and have a circumferential dimension, therefore, it would be reasonable to consider the 3<sup>rd</sup> loop containing sections/2<sup>nd</sup> circumferential bands as being oriented in a circumferential direction of the stent 10'. Further, if there is no explicit definition of a specific term, such as the term "oriented" as recited in the claims, one cannot transport the specification into the claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 6, 11, 42-47 and 49 are rejected under 35 U.S.C. 103(a) as obvious over JAYARAMAN (6,162,245) in view of Von Oepen (6,193,747).

As to claims 1, 6, 11, 42-47 and 49, JAYARAMAN (see Fig. 30 on page 3 above) shows a stent structure comprising 1<sup>st</sup> and 2<sup>nd</sup> loop containing sections/1<sup>st</sup> circumferential bands of a frequency F1, 3<sup>rd</sup> loop containing sections/2<sup>nd</sup> circumferential bands of 2<sup>nd</sup> frequency F2 > F1 to define cells/triangular cells as recited in the claims:

a. 3<sup>rd</sup> loop containing sections are configured in a sinusoidal shape of a frequency F2 higher than a frequency F1 of 1<sup>st</sup> and 2<sup>nd</sup> loop containing sections (Fig. 30, page 3 above), therefore 3<sup>rd</sup> loop containing sections do expand or contract when the stent structure is bent/expanded, thus 3<sup>rd</sup> loop containing sections do contribute to the cells elongating or shortening when the stent is in a curved configuration/expanded configuration.

b. Cells/triangular cells in one side of a neutral axis of bending of the JAYARAMAN stent will be in a tension condition and in the other side of the neutral axis will be in a compression condition. Cells under the tension condition will open in length and narrow circumferentially and cells under the compression condition will shorten in length but widen circumferentially.

c. In an collapsed configuration for deployment/before expansion, lines A and B are substantially closed one to another to make two low frequency adjacent bands out of phase 180° as recited in the claims.

Further, Von Oepen (Fig. 8-10; line 39, col. 5 to line 9, column 6) discloses web patterns 61, 62 having wider radial thickness than that of spring elements 63 so that web patterns 61, 62 can handle higher radial force. In view of Von Oepen, it would have been obvious to one of ordinary skill in the art to provide wider struts for 1<sup>st</sup> and 2<sup>nd</sup> loop containing sections/1<sup>st</sup> circumferential bands of a frequency F1 so that the 1<sup>st</sup> and 2<sup>nd</sup> loop containing sections/1<sup>st</sup> circumferential bands of a frequency F1 can handle higher radial force.

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2. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JAYARAMAN (6,162,245) and Von Oepen (6,193,747) as applied to claims 1 and 6 above, and further in view of YANG et al (6,120,847).

As to claims 3 and 8, JAYARAMAN discloses substantially all limitations recited in the claims, except for the stent is coated with a medicine for treatment purpose. However, coating a stent with a medicine or drug is well known in the art. For example, YANG discloses a method for coating a therapeutic substance on the surface of the stent for local treatment of a blood vessel. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a medicine coating to JAYARAMAN stent so as to have the medicine distributed directly to the treatment site of a blood vessel.

3. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over BROWN et al. (WO 00/30563 or US 20020007212 A1) in view of Von Oepen (6,193,747).

BROWN discloses substantially all limitations recited in the claims, except for the stent having wider struts in the lower frequency bands (including 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> members of the present invention) for handling radial force applied to the stent by a blood vessel. Von Oepen (Fig. 8-10; line 39, col. 5 to line 9, column 6) discloses web patterns 61, 62 having wider radial thickness than that of spring elements 63 so that web patterns 61, 62 can handle higher radial force. In view of Von Oepen, it would have been obvious to one of ordinary skill in the art to provide wider struts for the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> members/1<sup>st</sup> loop containing sections/1<sup>st</sup> circumferential bands of a frequency F1 so that the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> members/1<sup>st</sup> loop containing sections/1<sup>st</sup> circumferential bands of a frequency F1 can handle higher radial force when thinner struts are more flexible to adapt to a curved vessel.

### ***Response to Amendment***

As requested by the Representatives of the Applicants, the claims were discussed during the interview on 8/3/2005. Unfortunately, no agreement has been reached between the Representatives of the Applicants and the Examiner. As a result of the interview on 8/3/2005, a "Supplemental Amendment" was faxed to the office and to the Examiner on 8/3/2005. This "Office Action" is mainly based on the "Supplemental Amendment" faxed on 8/3/2005.



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Notice that Jayaraman (6,162,245) and Brown (WO 00/30563) stents have low frequency bands out of phase 180° when the stents are squeezed to a collapsed configuration for deployment in a blood vessel. Further, fig. 8 of Von Oepen (6,193,747) shows low frequency bands are 180° out of phase one to another.

### ***Conclusion***

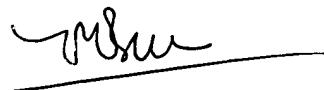
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vy Q. Bui whose telephone number is 571-272-4692. The examiner can normally be reached on Monday-Tuesday and Thursday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anhtuan T. Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



08/06/2005

Vy Q. Bui  
Primary Examiner  
Art Unit 3731